

tion medications are due to the availability of a variety of antipsychotics which are widely used for both acute schizophrenia and as maintenance medications. This cost estimate may help health care providers and policymakers better understand the economic burden of schizophrenia and identify services associated with the highest costs.

PMH30

INDIRECT COSTS (IC) OF ADULT WOMEN WITH ANXIETY DISORDERS (AD) IN THE UNITED STATES IN 2006 FROM THE MEDICAL EXPENDITURES PANEL SURVEY (MEPS)

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OBJECTIVES: To estimate the IC for adult women with AD in the United States in 2006. **METHODS:** Females > 17 years who reported AD were selected. A control group was created using propensity score matching. The components of indirect costs were annual national cost of missed work days for employed individuals, annual national cost of other bed days for unemployed individuals, and the present value of future productivity due to premature deaths. To calculate the number of missed work days attributable to AD, the unadjusted mean number of missed work days and other bed days for those without AD was multiplied by the regression coefficient for AD from the multivariate regression minus the unadjusted mean number of missed work days and other bed days for those without AD. Using the number days attributable to AD and the MEPS sample weights for each individual, the total cost of missed work days and other bed days attributable to AD in the United States was estimated. Mortality costs were calculated as the present value of future productivity due to premature deaths. The total amount of indirect costs was estimated by adding the total from morbidity estimate to the total from the mortality estimate. **RESULTS:** The morbidity costs were \$8.13 billion and mortality costs were \$0.46 billion. **CONCLUSIONS:** Morbidity costs due to lost productivity were the major costs of IC and indicate a significant financial burden that can be reduced by disease management programs.

PMH31

TRAJECTORY ANALYSIS OF HEALTH CARE COSTS FOR PATIENTS WITH MAJOR DEPRESSIVE DISORDER TREATED WITH HIGH DOSES OF DULOXETINE

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OBJECTIVES: To examine healthcare cost patterns prior to and following duloxetine initiation in patients with major depressive disorder (MDD), focusing on patients whose dose was initially high or was titrated to high levels. **METHODS:** This was a retrospective analysis of 10,987 patients aged 18 to 64 years treated in a real-world clinical setting and enrolled in health insurance for the 6 months preceding and 12 months following initiation of duloxetine. Repeated measures and pre-post analyses were used to examine longitudinal healthcare cost trajectories before and after initiation of low- (<60 mg/day), standard- (60 mg/day), and high- (>60 mg/day) dose duloxetine. Classification and regression tree analysis was used to identify factors influencing patient heterogeneity in healthcare cost outcomes for patients whose doses were titrated to high levels. **RESULTS:** Low, standard, and high doses of duloxetine were initiated for 29.6%, 60.9%, and 9.5% of patients, respectively, with 13.7% received titrated high dose within 6 months duloxetine initiation. Regardless of dose, total costs increased in the months leading to and decreased in the months following initiation of treatment. Patients whose dose was initially >60 mg/day had higher costs both prior to and throughout the course of treatment as compared to patients treated with standard-dose duloxetine. Following dose escalation to >60 mg/day, costs were higher for medication but lower for inpatient services, resulting in total cost neutrality. Titration to high-dose therapy was cost beneficial for patients with histories of a mental disorder and high prior medical costs. **CONCLUSIONS:** Patients with MDD had cost increases leading to and cost declines following initiation of duloxetine therapy. Patients treated with >60 mg/day had higher healthcare costs both prior to and following initiation compared to those treated with ≤60 mg/day. Increases in pharmacy costs associated with escalation to high-dose therapy were offset by reduced inpatient costs.

PMH32

COMPARISON OF REAL-WORLD HEALTH CARE COSTS AFTER THE INITIATION OF SECOND-LINE DULOXETINE OR GENERIC SELECTIVE SEROTONIN REUPTAKE INHIBITORS IN PATIENTS WITH MAJOR DEPRESSIVE DISORDER

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OBJECTIVES: To compare real-world healthcare costs after initiation of second-line antidepressant treatment with duloxetine vs. generic selective serotonin reuptake inhibitors (SSRIs) for major depressive disorder (MDD). **METHODS:** Study sample was selected from a de-identified U.S. privately-insured claims database (2005–2009). Selection criteria: age 18–64 years, ≥1 MDD diagnosis (ICD-9-CM: 296.2, 296.3) in an inpatient setting or ≥2 MDD diagnoses in emergency room/outpatient settings, initiation of an antidepressant treatment after a 3-month washout, initiation of a second-line treatment with duloxetine or generic SSRI (defined as the index date) no later than 90 days after the end of first-line treatment, continuous coverage eligibility from 6 months before the index date (baseline period) to 12 months after the index date (study period). Using optimal matching on propensity scores and baseline costs, 838 patients initiating second-line duloxetine were matched to 838 patients initiating second-line generic SSRI. McNemar tests were used to compare proportions. Bias-corrected bootstrapping was used to compare healthcare costs (reimbursement to providers for medical services and prescription drugs)

inflated to 2009 dollars. **RESULTS:** Before matching, second-line duloxetine compared with generic SSRI users were older, more likely to be female, had a higher rate of chronic pain, and had higher baseline prescription drug costs and \$2,967 higher study period healthcare costs. After matching, there were no notable differences in baseline characteristics and costs. After matching, neither study period healthcare costs (\$11,342 vs. \$10,328, $p=.2316$) nor medical costs (\$8,377 vs. \$8,051 $p=.7063$) were significantly different between second-line duloxetine and generic SSRI users. Prescription drug costs were significantly higher for second-line duloxetine users (\$2,965 vs. \$2,277, $p<.0001$), largely due to differences in mental health-related drug costs (\$1,605 vs. \$1,008, $p<.0001$). **CONCLUSIONS:** Controlling for patient differences, this study found that second-line duloxetine users had similar medical costs and higher drug costs compared with second-line generic SSRI users.

PMH33

THE EFFECTIVENESS OF BUPRENORPHINE-MEDICATION ASSISTED TREATMENT AMONG AETNA'S OPIOID DEPENDENT MEMBERS: AN ANALYSIS OF HEALTH CARE COSTS AND SERVICE UTILIZATION

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OBJECTIVES: Buprenorphine-medication assisted treatment (B-MAT) is an effective treatment for opioid dependence (OD), but may be considered cost-prohibitive by patients and health plans who manage its use based on ingredient cost alone. This analysis was conducted to estimate economic costs and benefits of B-MAT for OD from the perspective of a health plan sponsor. **METHODS:** A longitudinal, multivariate analysis was conducted using service use claims data among a sample of Aetna members with full benefit coverage and one or more diagnoses of OD during the 48 month measurement period (Q1 2006 to Q4 2009). OD members treated with B-MAT ($n = 725$) were compared to members not treated with B-MAT ($n = 1410$). Two six-month measurement periods were constructed around the index date: a six month pre-period and a six month post-period. **RESULTS:** During the six-month post period, B-MAT members filled an average of 0.29 ($P < 0.001$) more prescriptions and had an average of 0.21 more psychiatrist visits ($P < 0.001$) than non B-MAT members, but utilized significantly fewer behavioral health inpatient hospital admissions (-0.82), behavioral health hospital days (-0.71), medical inpatient hospital days (-0.39), and emergency room visits (-0.31 ; $P's < 0.001$). Concerning healthcare costs, B-MAT members spent \$5305 less on inpatient hospital costs ($P=0.002$), \$542 less on emergency room costs ($P=0.016$), and \$6,378 less on total health care costs per member compared to non B-MAT members ($P=0.001$). **CONCLUSIONS:** Though B-MAT patients incur higher pharmacy costs, they use fewer expensive health care services in other areas, resulting in an overall positive cost-benefit. Assuming present results remain in direction and magnitude across other health plans, and from year to year, health plans can experience considerable savings using B-MAT as a first line of treatment for OD supported by outpatient services such as office based providers and counselors.

PMH34

MEASURING THE IMPACT OF PERSISTENCE WITH PSYCHOTROPIC DRUG THERAPY ON TREATMENT COSTS FOR PATIENTS WITH SCHIZOPHRENIA

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OBJECTIVES: To investigate the relationship between persistence with drug therapy and treatment costs in patients with schizophrenia. **METHODS:** Paid claims data from a commercial insurer was used to identify patients with schizophrenia. The unit of observation was the drug treatment episode. A total of 21,570 episodes were included in ordinary least squares (OLS) regression models of post-treatment cost as a function of alternative definitions of compliance adjusting for patient demographics, drug use history, prior medical care use, schizophrenia diagnosis and co-morbid medical conditions. **RESULTS:** Adding a second medication within one year is the key factor in this study. When compared to patients achieving one year of continuous therapy on the initial drug without switch or augment on a second drug; patients completing one year of therapy on their initial drug while adding an augmenting medication experienced increased drug costs by \$1,565 ($p<0.0001$) and increased medical costs of \$6,583 ($p<0.0001$). Patients who did not achieve compliance on their initial medication, but did achieve compliance on their second medication exhibit higher total costs \$11,381 ($p<0.0001$). Patients using less than one year of psychotropic medication despite switching to or augmenting with a second drug experienced reduced drug costs, but also experienced increased medical costs. Similarly, patients who discontinued their initial therapy within one year but restart therapy using these medications also experienced reduced drug costs and increased medical costs. Finally, patients who quit their initial and any other therapy within one year save drug costs but also experience significantly higher medical costs. **CONCLUSIONS:** Compliance is associated with significant reductions in medical costs only if the initial drug regimen is maintained for 12 months. On the other hand, patients using less than one year of psychotropic medication experienced reduced drug costs relative to the most compliant patients (the comparison group), but also experienced increased medical costs.

PMH35

COMPARISONS OF MENTAL HEALTH-RELATED MEDICAL CARE UTILIZATION AND COSTS FOLLOWING THE INITIATION OF ORAL VERSUS LONG-ACTING INJECTABLE RISPERIDONE IN PATIENTS WITH SCHIZOPHRENIA

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OBJECTIVES: To assess the patterns of mental-health related medical care utilization and medical costs in patients with schizophrenia initiating on either oral or